SCHOOL PHYSICIANS' BULLETIN

VOL. VI MARCH, 1936 No. 3

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The study was then directed to other species. By 1927 we had quantitatively compared the antiricketic value of oils from 15 species of fish and 11 other oils and fats. This was the most extensive survey of vitamin D sources reported up to that time. Outstanding in this list was puffer fish liver oil with a vitamin potency 15 times that of cod liver oil. Puffer fish were not available in commercial amounts, but the fact that one species of fish yielded so high a vitamin store provided great stimulus to investigators.

We discovered that the potency of fish liver oils increases with the leanness of the livers. With this revelation, we began a survey of all available commercial fish, as well as of rarer species. Collectors were sent to distant continents and to the islands of the Pacific and Atlantic oceans. From ports which never before knew cold storage we arranged to obtain refrigerated livers for our experiments. This ichthyological survey was interrupted (1928) at the time we introduced activated ergosterol.

In 1929 the Norwegian investigator, Schmidt-Nielsen, reported halibut liver oil to be superior to cod in vitamin A. Upon investigating, we felt then, as we do now, that while halibut liver oil marked a distinct advance it left much to be desired since it was perforce an expensive source of vitamin D. Hence it came to be used chiefly to supply vitamin A as a vehicle for viosterol.

Continuing the search for fish liver oils, by 1934 our laboratory staff had made thousands of bioassays of oils from more than 100 species to determine their vitamin characteristics. The results, reported in scientific journals in January and April 1935, were the culmination of a search literally of the seven seas.

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*U.S.P. XI Minimum Standard.
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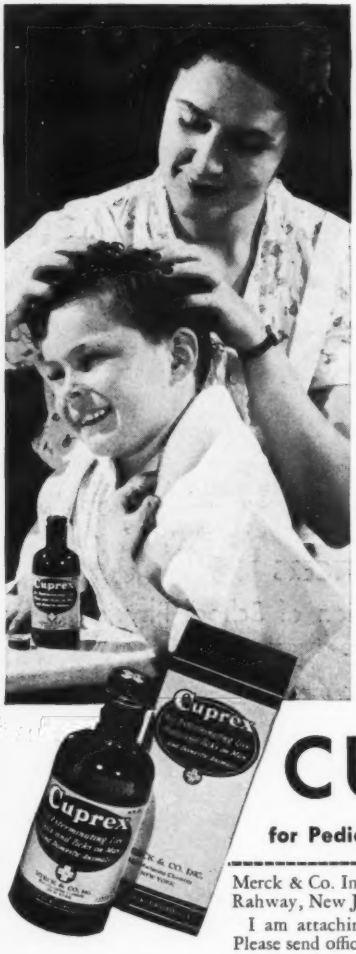

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School Physicians' Bulletin

Devoted to the interests and advancement of School Physicians and the service rendered by them. Your participation by membership is solicited.

VOL. VI MARCH, 1936 No. 3

ASPECTS OF HEART DISEASE IN SCHOOL CHILDREN IN LOS ANGELES

By

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Los Angeles, California

This report is based upon a series of 1290 completely studied cases throughout a period of 9 years. Not all of these children were under observation for this full period of time. Many of them returned at yearly intervals, at which time the progress of their disease was noted.

These 1290 cases do not represent all of the children examined during this nine year period, but is a good cross section of the type and character of heart disease with which we came in contact. There were 705 males and 585 females. No attempt was made to correlate sex with the frequency or severity of Organic Heart Disease. It was our impression, however, that sex bore no relationship to the type or occurence of the lesions.

Of the 1290 cases completely studied, 605, or 46.8%, were diagnosed as not having any cardiac abnormality. 685, or 52.2%, were diagnosed as having Organic Heart Disease. Of this Organic group, 246, or 36.2%, had Congenital defects. Of the total number of cases examined 19.2% were Congenital. Rheumatic Heart Disease was diagnosed in 243 cases or 18.8% of the total, or 35.4% of the Organic hearts. Only those cases were included in the group of Rheumatic Heart Disease that had combined mitral stenosis and regurgitation, mitral stenosis and regurgitation, and aortic regurgitation, pure aortic regurgitation, pericarditis, and pancarditis. There still remans a group of 181 cases of Organic Heart Disease with definite hypertrophy of the left ventricle and transmitted apical systolic murmurs of varying intensity. No history of rheumatic fever or chorea was obtained in these cases. This group comprised 26.7% of the organic cases and will be discussed later.

There were 141 cases of combined mitral stenosis and insufficiency, or 33.4%. Of the combined mitral stenosis and regurgitation with aortic regurgitation, there were 20 cases, or 4.7%. Pure aortic regurgitation was present 69 times, or 10.5%. Of the other less frequent diagnoses associated with rheumatic heart disease, chronic pericarditis was diagnosed three times and pancarditis eight times.

The ages of these children varied from 4 to 19 years. Of the 1290 cases, 745, or 57%, were between the ages of 11 to 16 years, this representing the adolescent age. In an analysis of the frequency of Rheumatic Heart Disease in the different age groups, we found that this form of heart disease was more prevalent between the ages of 12 to 16 years. About 50% of the cases fell into this group. Approximately only 25% were found in the age group between 6 and 11 years. This is in accord with the study of Goodman and Prescott in New York, Robey in his Boston report, and Baker in New York City.

While these figures coincide with the studies already referred to, we feel that in Los Angeles there is a sufficient reason for this apparent similarity. Most frequently the Rheumatic Fever or the Rheumatic Heart Disease originated in some other State and the child was brought to Southern California on this account. Another reason for this large percentage in the older age group is that some children, who were thought to have functional heart abnormalities, were found after several years of observation to develop actual Organic Heart Disease. Native rheumatic fever in Southern California is, very rare, and where it does occur, its course is insidious as compared with that found along Atlantic Coast.

In the younger age group, between 6 to 11 years, where the positive diagnosis of Rheumatic Heart Disease was made, we found that the evidence of this disease was progressive.

The group of Acquired Heart Disease included 181 cases. In contradistinction to the Rheumatic Disease group, these cases gave no history of rheumatic fever or chorea. Each patient showed a hypertrophy of the left ventricle by clinical examination and by teleoroentgenogram. There were also apical systolic murmurs of varing intensity. Many of the systolic murmurs were transmitted to the exilla. Cinicaly, they represented cases of apparent mitral insufficiency.

In our survey of Organic Heart Disease, there was a comparatively large group of Congenital Heart Disease, that is 36.2%. This is a larger percentage than was found by Goodman and Prescott, whose figure was 8% of 528 cases, but it is in accord with Richter, whose survey in San Francisco found 33.5% of Congenital Heart Disease. It is difficult to explain the high incidence of congenital lesions found on the Pacific Coast as compared with the surveys on the Atlantic Coast. In this regard, however, it is probable that the same reason mentioned under the incidence of Rheumatic Heart Disease in Los Angeles, namely, that these patients are immigrant cases, may apply to Congenital Heart Disease.

In contra-distinction to the frequency of Rheumatic Heart Disease in the older age group, Congenital Heart Disease occured in the younger ages. For instance, over 62% of the total number of Congenital cases were found between the ages of 5 to 12 years.

The diagnosis of Congenital Heart Disease was based upon the following criteria:

1. Those cases with a loud basal systolic murmur and palpable basal thrill not associated with ventricular enlargement were classified as a patent doctus arteriosis.

2. Those cases with a systolic murmur varying in intensity heard over the mid-sternum, frequently associated with a systolic thrill, and an enlargement of the right and left ventricles as shown by x-ray, with or without cyanosis, were classified as a patent inter-ventricular septal defect.

3. A loud basal systolic murmur, basal systolic thrill, pronounced cyanosis, associated with clubbing of fingers and toes, were classified as pulmonary stenosis.

In 30 cases the exact lesion could not be determined and these were placed in an unclassified group. Patent doctus arteriosis was most frequent, occurring 91 times. A probable patent foramen ovale occurred 19 times. Interventricular septal defect occurred 63 times. Pulmonary stenosis occurred 40 times. Dextro-cardia was found in 3 cases. Although combinations of the above defects occur very frequently, these figures were based upon our evaluation of the predominating defect.

It is well known that rheumatic fever and chorea definitely produce a high incidence of valvular heart disease. What role is played by the exanthemata in the production of heart disease is not definitely known. With this object in mind, a careful statistical study was made with reference to the diseases of childhood and their relation to this group.

Of the entire group of 1290 cases, 333 or 25.8%, gave a history of rheumatic fever or chorea. The rheumatic fever cases were 277 and the Chorea 56, or almost in a ratio of 5 to 1. It is evident that the history of rheumatic fever and chorea was obtained in a larger number than the actual group classified as Rheumatic Heart Disease. This discrepancy may be explained by the incorrect interpretation of the parents in giving the history as to what is meant by true rheumatic fever. Not infrequently where a history of rheumatism was obtained, no evidence of organic heart disease was found.

Tonsilitis was a frequent complaint in 296 cases, or 22.9%, of the total number examined. The importance of this disease is unknown, since it is difficult to determine the frequency of a rheumatic carditis unassociated with joint manifestation.

The history of measles was obtained 777 times, or 60.2%, of the 1290 cases. It was the most frequent of all of the exanthemata. During the World War, measles gave many more complications from the standpoint of the general constitutional reaction and heart condition than any of the other exanthemata.

Chicken pox occurred 251 times, or 19.4%. Small pox occurred only 24 times. Scarlet fever occurred in 131 cases, or 10.1%. No true case of acquired heart disease was directly traceable to it as a cause. Diphtheria occurred in 96 cases, or 7.4%. This low incidence of

diphtheria is easily explained by the general acceptance by Pediatricians and Boards of Health of the modern methods of immunization against this disease.

History of influenza occurred in 178 cases. Here again it was a problem to ascertain and evaluate just what the parents meant by the term "influenza". We found that they would claim a child had influenza based on mild fever accompanied by bronchitis. One must not confuse mild upper respiratory infections with true influenza, since it has been definitely shown that influenza as experienced in 1918 epidemic frequently caused myocardial damage at the time of the acute infection and also in later years.

Among the arrhythmias we found 7 cases of different stages of heart block, also 33 cases of other true abnormal rhythms. No attempt was made to enumerate the frequency of sinus arrhythmia since it is considered as a normal rhythm. All of the abnormal rhythms were checked by the electrocardiograph. Of the 7 cases of heart block, two showed complete block with auriculo-ventricular dissociation. In these two cases there was no other evidence of Organic Heart Disease. Of the other five cases of heart block, four were auriculo-ventricular prolongation which could only be recognized by the electrocardiogram. The fifth case was a sino-auricular block. The other 33 cases of abnormal rhythm were due to extra systoles. We were surprised to find this abnormality frequent in childhood. In none of these cases was there any evidence of Organic Heart Disease.

Conclusions: We have given in this survey some of the more salient conditions with which the school physician comes in contact and have called attention to the necessity of careful observation and careful history taking. We have not included in our survey any case of questionable rheumatic fever and have been particularly careful to evaluate the relationship of the other etiological factors before placing any single heart in a particular group.

In this brief discussion, the following points have been stressed.

1. Careful clinical data should be obtained upon which to base a proper classification of the lesion presented.

2. Frequent examinations are necessary before making a diagnosis in questionable cases.

3. A more standardized method of formulating these surveys should be adopted, in order to obtain more uniformity of observation and classification from the etiological standpoint, in future similar studies.

Better a mistake avoided than two corrected.

The want of money is the root of much evil.

Beware of one who has nothing to lose.—Italian.

PREVENTION OF HEART DISEASE IN CHILDREN

PAUL DUDLEY WHITE, M.D.

Massachusetts General Hospital, Boston

The three main causes of heart disease in childhood in New England are rheumatic infection (90 per cent), congenital maldevelopment (about 9 per cent), and diphtheria (about 1 per cent). In many other parts of the United States the incidence of rheumatic heart disease is less, especially in the south. There is about half as much rheumatic heart disease in the Central Atlantic States as in New England, and only a small fraction in the extreme south, that is in such states as Florida, Louisiana, and Southern Texas. In Southern Florida the rheumatic heart disease is less than 5 per cent of that in New England. The rheumatic infection which causes rheumatic heart disease is thus in large part dependent on climate; it is well known that activity of the infection is slight in the extreme south at any time and in the north during the summer and fall when the weather is at its best.

The prevention of rheumatic heart disease is difficult. In the first place we don't know the bacterium that is responsible for the rheumatic infection although it is undoubtedly a streptococcus. Probably several different steptococci can induce the rheumatic infection in heart, joints, and other parts of the body. We do know, however, that rheumatic heart disease is more common in poorer crowded neighborhoods where the nutrition of the children is unsatisfactory and where exposure to respitory infections through contact or chilling is greatest.

Therefore the three preventive measures that we can recommend in the present state of our knowledge of rheumatic heart disease are: 1) the betterment of the home care of children, 2) the protection of children especially those subpect to rheumatic infections, or belonging to families so subject, from respitory infections which so frequently excite active rheumatism, and 3) the transport of children to more favorable climates in the winter and spring. Good food (rich in vitamins), proper clothing, regular hours of rest, and individual sleeping quarters are important features of the home care of children with a view to the presentation of the rheumatic infection.

Congenital heart disease in the present state of our knowledge cannot be prevented, but it seems likely that in the future with greater emphasis on the importance of eugenics progress will be made. The child who already has congenital heart disease should be protected more or less as the rheumatic heart child is, in order to avoid serious complications of infection or failure.

Death from diphtheria in childhood is due in large part to the overwhelming toxic damage to the heart muscle. This can be prevented by early diagnosis and proper treatment with adequate anti-toxin.

GREAT INTEREST IN HEART HEALTH AND SAFETY

The profound popular interest in health matters was brought recently to the surface with renewed emphasis through the exhibits and demonstrations of the State Department of Public Health at the Illinois State Fair in August. More than 100,000 people visited that part of the balcony of the Exposition Building where 6,000 square feet of space was devoted to a visualization of the principles of preventive medicine and to practical demonstrations in their application.

Facilities for giving to adult volunteers a chest examination with especial reference to the heart and an opportunity for automobile drivers to test their reaction time were two outstanding features of the exposition. Both of these demonstrations operated at maximum capacity throughout the period of the fair. The demand was much greater than the ability of the staff to accommodate the visitors who wished ot take advantage of these opportunities.—*Albany Weekly Bulletin.*

DEEP BREATHING HELPFUL IN HEART DISEASE

Dr. S. Adolphus Knopf, a prominent New York physician, has recently made interesting observations on the effect of deep breathing as a means of benefiting persons suffering from heart disease.

Dr. Knopf calls attention to the fact that deep breathing in which the diaphragm is called into play improves the oxygenation of the blood and so furnishes the heart a better supply of oxygen. The beneficial effects of oxygen in heart conditions are well known: in fact, in these cases oxygen inhalation is often employed with benefit. Of course it is not claimed that oxygen breathing will cure heart disease, but it will ameliorate distressing symptoms, which is especially true in cases of coronary disease in which the vessels which supply blood to the heart are diminished in size, thus lessening the supply of oxygen, a condition often found in angina pectoris.

Oxygen is expensive and oxygen inhalation requires the use of apparatus. Dr. Knopf suggests that effects sumilar to those obtained from inhalation of oxygen may be secured by deep breathing or deep breathing alternated with superficial respiration, whereby a sort of massage may be administered to the heart and large vessels and so increase the rate of blood movement and secure a better supply of oxygen to the heart.

Dr. Knopf recommends that this deep breathing be practiced lying down, the chest and head being raised six to ten inches. The patient should relax in mind and body, an imagine that the respitory movement begins in the toes of the right foot. As the inhalation gradually travels upward as far as the diaphragm on the right side, and while it crosses over to the left side, the patient retracts the abdominal muscles so as

to produce a concavity of the abdomen, whereby the diaphragm descends. The patient then exhales as slowly as he can, imagining that the exhalatory movement is traveling downward toward his left foot. There should be a stop of two ar more seconds before inhaling again. The exercise should not be taken when tired or kept up until tired. Some patients learn to breathe diaphragmatically all the time without conscious effort.—*Good Health.*

CORONARY DISEASE

In the last few years, quiet but revolutionary changes have taken place in the concepts regarding heart disease. Probably the most important is the growing appreciation of the significance of diseases of the coronary arteries which supply blood to the heart muscle.

An increase in the coronary death rate has been recorded at every age period in adult life, both in men and women. It is clear, that the disease is not only a most important cause of death today but if present trends continue it may be expected within a few years to rank as the leading cause.

Coronary disease is distinctly an affliction of middle and later life. Deaths from the condition are rare under the age of 35. The frequency of the disease rises rapidly with age thereafter.

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Are you one of the many members of the Association or subscribers of the Bulletin, who have forgotten or neglected to pay your dues? This neglect, mostly unintentional, embarasses the Association in many ways.

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It materially lessens the service that the Association could otherwise render to its members.

Help the Association to be more helpful to all. Should you owe dues for more than two years deduct 25% in payment to January 1, 1936.

Should you be in doubt as to your dues, drop a postal card to your Secretary-Treasurer, 883 Broadway, Albany, New York.

Lads who heed the safety hints
Are seldom seen done up in splints.

A girl who wanted to go places cleaned her dress in gasoline near a pilot light. She went!

PITFALLS TO AVOID IN EYE TESTING

RICHARD W. WEISER, M.D.

Medical Supervisor, Kenmore, N. Y.

Just recently I was interviewed by a parent who had paid a fee of ten dollars for a complete eye examination of her eight year old daughter. The eyes, at the time of testing by one of our nurses, were 20/50 and 20/200 respectively. On examination by an eye physician the eyes were pronounced absolutely normal. The parent was quite happy to pay the fee to know that her daughter's eyes were normal because she had an older child with an eye defect which was found in school.

However, I made a thorough investigation to determine our error The visual acuity test at school for last year was 20/20. The test made by the nurse this year was performed under ideal conditions with both the letter and number charts and the inverted E chart as a check. This particular nurse has always been very careful and thorough in her work with an experience of over 25,000 eye tests to her credit. On questioning the mother I found that the daughter has an intense desire for glasses ever since her brother wears them. This was a factor to be considered, but most important was the behaviour of the child whenever she is confronted with a test or examination. Both my findings and the parents revealed that she becomes quite excited and exhibits flushing of the skin. This latter condition of nervous instability was undoubtedly the cause of our erroneous visual acuity test.

This is not the first case of instability of the nervous system affecting the testing of eyes that we have met with, but it does bring to our attention again the fact that we must re-check and consider all causes of error before notifying parents of an eye defect. The value of our school examination to parents is only weakened by reporting defects which the family physician or specialist finds to be normal. We must be on the alert to discover any conditions that may affect our testing and standards. The State Department recommends that all visual acuity tests of 20/40 or worse should be reported to the parents as an eye defect for further study by an eye specialist.

Where we followed this standard we found that in three to four cases out of ten the eye physician or clinic would report back that eyes tested normal and that in the remaining cases where there were no symptoms of eye strain, styes, headaches referable to the eyes, etc. the report would state that nothing should be done except annual re-checks. On the other hand, if these cases went to an optometrist practically all of them would be fitted with glasses.

We must guard against the over-zealous fitting of all cases with glasses. Glasses have a definite function to perform and should not be made a

form of personal adornment. In judicious advertising by many eyeglass manufacturers is tending to make the people in general "Eyeglass conscious" instead of "SIGHT CONSCIOUS."

This state of affairs brings out an important opportunity we are neglecting. Those cases which have a visual acuity of 20/30 or 20/40 where we have no co-incident symptoms of eye strain, etc. should be made special cases for investigation into habits of living, hours of sleep, diet fads, use of eyes on outside reading, frequency of visits to movies, types of periodicals used for reading and, most of all, the lighting conditions in the homes of the students.

In an effort to avoid as many pitfalls as possible we have adopted the following standards in reporting eye defects in our schools:

I—All cross eyes are carefully watched and parents advised to keep their children under the care of an eye physician as this condition is usually a surgical problem and not a matter of just fitting with glasses. The usual rule is that if glasses do not measurably correct the condition within two to three years, an operation is indicated. In many cases, even though the sight cannot be improved, the cosmetic effect is of inestimable value by surgical correction. In other cases, changes in behaviour and new outlooks on life are formed.

II—In all cases of eye strain, headaches referable to the eyes, repeated stye formations or any objective symptoms of eye strain such as lack of attention, frowning when reading, drowsiness, blinking of eyes or poor reading when the visual acuity test is 20/20 or normal, the parent is notified and suggestion made of a thorough eye examination. Eye specialists find a large number of cases requiring glasses in this classification with the subsequent disappearance of all symptoms.

III—In all cases where the eyes test 20/50 or worse and a history of a common respiratory disturbance or other illness precedes the testing the test is repeated at a time when the child is in better health. However, the teacher is immediately notified so that the child can be spared as much eye work as possible. One to two months later, on re-check after returning from a communicable disease or illness, the eye test is found to be virtually normal seven times out of ten, even though the original test was 20/50 or 20/70.

IV—In all cases where the eyes test 20/50 or worse in either eye and none of the above conditions apply but the physical record shows the previous year's tests were 20/30 or 20/40, a notice is sent to the parent.

V—In all cases where the eyes test 20/50 or worse in either eye for the first time, the eyes are re-checked for three successive weeks. If the tests are the same or worse, a notice is sent home. If they improve to 20/30 or 20/40 the case is re-checked six months later. (This is just being started with the hope of eliminating the influence of an unstable nervous system on the test.)

VI—All cases that reveal a 20/30 or 20/40 test are placed on an obser-

vation list for the teacher, as well as the school nurse, to check on the health habits. In this way the teacher becomes more interested in protecting the sight of those children. However, it must be remembered that wherever there are any suspicious symptoms of any condition referable to the eyes, then the parents are notified.

VII—In the testing of the eye of the younger children, every effort is made to make a game of the test and not mention "eye test" to them. They are urged to see as much as they can and tell us all they see. In some cases a reward will bring the desired result. Bashfulness and fear of making mistakes will frequently prevent them from reading all that they are able to see. The inverted E chart is the best test for these pupils and can be supplemented with the Baily Visual Perception Blocks.

This list of regulations is far from infallible but since our testing is just a screening device it is open to many errors and must follow certain standards in order to make the testing worthwhile.

In talking with a group of eye physicians on this problem of avoiding mistakes in eye testing, they admitted that they could not give an opinion that glasses are necessary until a complete examination is made. With this in mind, we should not be criticised too severely if occasionally a case with subnormal vision is reported as not needing glasses. However, they did say that far too many nurses, upon finding a case of subnormal vision in which the eye physician does not advise the wearing of glasses, insist that the parents see another eye specialist, with the result that very often the child ends up in the office of a department store optometrist with a pair of glasses and the advice that they are necessary. The duty of the nurse in all cases is to report only the fact that she is suspicious of an eye condition which should be taken care of; and never to tell parents that the children need glasses. Sometimes physicians fall into this class and then the eye physician has a more difficult job convincing the patient they do not need glasses. However, school physicians and school nurses who intelligently perform their duties can avoid these pitfalls.

The eyes have been referred to as "the windows of the soul." When one realizes that 83 per cent of all impressions come through the eyes, it is self evident that this phrase is an apt description. The eye is not only of fundamental importance in learning, but it is associated with the general health of the body. The eye of man was built for the hunter, fighter, trapper and fisherman, not for the reader. The invention of the printing press made the problem of eye hygiene of tremendous importance. This is the trend of thought in "Good Eyes For Life," one of the best books for teachers and parents that has recently appeared. It is exceedingly practical and is written in a pleasing style. It should have a wide use in teacher-training institutions.

EYE HEALTH STUDY OF TEXAS SCHOOL CHILDREN

An Eye Health Study of Texas School Children was recently made by a joint committee of educators and physicians.

Dr. J. Guy. Jones, an oculist of Dallas, Texas was chairman of the committee.

The report is published in full by the Bureau of Nutrition and Health Education of the University of Texas.

It contains much valuable information and clearly indicates an urgent need of better attention to the eyes of School Children.

It was found: Of the 5,748 children given the vision test 23 per cent were screened out for the eye physician's examination because they showed signs of some abnormal eye condition; 33 per cent of the 5,748 children were sitting in areas with sub-minimal light intensities. No casual relationship was proved or attempted.

12 per cent were unable to read the standard vision line.; 15.6 per cent had symptoms of abnormal eye conditions; 11.7 per cent had refractive errors; 2.8 per cent had pathological difficulties. These are pertinent because some of them may lead to blindness.

Eye defects increase with grade level. But it is believed that in high school, pupils with abnormal eye conditions are among those dropping out of school.

More girls than boys have significant refractive errors.

Of age groups, refractive errors are most closely associated with overageness.

Ten per cent of the glasses worn by the children and prescribed by eye physicians were in error; 60 per cent prescribed by others were in error. It is not known whether these were original errors in technique or were cumulative errors of the eyes that were not caught by re-checking the glasses at intervals.

A fair positive correlation exists between refractive errors and visual acuity.

Natural lighting under all weather conditions does not provide adequate light intensity at all working points in the classrooms. Artificial lighting is entirely inadequate for the majority of classrooms.

The three factors influencing natural lighting most disadvantageously are the types of window shades, the ceiling and upper wall paints, and the placement and proportion of the glass area.

The teacher fails to utilize fully the available light intensities through proper arrangements and adjustments.

Eye health instruction is often contravened by environmental conditions not conducive to good eye health.

Sincere interest in the eyes of the school children and earnest efforts to follow up the findings were exhibited by the school administrators and their staffs.

ADVICE FOR PARENTS

Arrange the breakfast and lunch hours so that there is no rushing at home or to school.

Encourage punctuality and regular attendance, not permitting trifles to interfere.

See that the children are dressed simply, neatly, modestly and suitably in accordance with the weather.

Insist upon children under 14 having at least ten hours' sleep.

Find out how much time should be devoted to home work, and see that it is done.

Provide a quiet place for home study, with good light and ventilation. Prevent interruption as far as possible.

Show an interest in the children's school work, athletics and other activities.

Do not criticize the teachers or school within the children's hearing. Always hear both sides of every question and ask the teacher about it.

Instil in the children habits of obedience and respect for authority.

Picture the school as a happy, desirable place, rather than as one children should dread.

Keep in mind that the school offers unlimited opportunities to those who take advantage of them, parents as well as pupils.

Plan to meet other parents in the school. It will help you to understand your children better. Mothers should arouse the interest of fathers in the school activities and get their cooperation. If there is a parent-teacher association in your children's school, join it. If there is none, why not form one? Intelligent cooperation brings splendid results to all.—*United Parents Association of Greater New York Schools.*

Movies and the Eyes.—Movies are harmless to healthy eyes, according to an inquiry conducted by the Italian Institute of Educational Films through questionnaires sent to 15,784 school children and to leading ophthalmologists. Nevertheless, to avoid eyestrain, certain rules are suggested: that attendance be limited to one hour at a time; that there be two or three minutes' rest every ten to fifteen minutes; that attendance be prohibited to children having uncorrected errors of refraction or muscle balance and to those whose corrected vision is 20/40. These suggestions for cinema eye hygiene might well be considered in the United States, where the Saturday afternoon offering at the local movie lasts four hours or longer. Eye hygiene, as well as programs, for children should be included in the study of motion pictures for children.—*Sight Saving Review.*

If I were a physician, I would wheel my patients to the window, and let Nature feel their pulses.—*Thoreau.*

Help for the Cross-Eyed Child.—The cross-eyed child needs prompt, corrective treatment, say the Canadian National Institute for the Blind and the Canadian Council on Child and Family Wefare, in a joint publication prepared by members of the Staff of the ophthalmological Department of the Toronto General Hospital. The pamphlet emphasizes the points: What is a squint? What causes a squint? How should a squint be treated? and the parental responsibility for instituting prompt corrective measures.—*Sight Saving Review.*

HOUSEHOLD HINTS

1. Hand-holds near the bathtub help the family to keep a firm foothold.
2. Refuse to re-fuse the home electric wiring system except with the proper kind of fuses.
3. Good connections mean a lot when it comes to home safety. Worn electric cords sooner or later will produce dis-cord in the home.
4. One final tip for home safety—rocking chairs tip! Have a good firm stepladder for climbing purposes.—*Safety Education.*

A HANDFUL OF HEALTH

1. Healthy nails are short, clean, and well shaped.
2. Natural pink nails mean good circulation.
3. Keep all wounds clean. Prevent infection.
4. Clean hands prevent the spread of disease.

—*Safety Education.*

PREVENT MEASLES

Under conditions of private practice it is well worth while to protect the brothers and sisters of a child with measles by intramuscular injections of blood from some older member of the family who has had measles. This is especially true of younger children. Unless a child is already seriously ill, it is wisest to produce an attenuated form of the disease, which presumably gives lasting immunity. Given by C. C. of whole blood can easily be injected without delay or complicated equipment. The history that a child has had measles should not be too strongly relied upon.

IT IS A FACT

Your body contains 263 bones.
You have 500 muscles.
There are 30 pounds of blood in your body.
Your heart beats 100,800 times a day.
You have 10,000 nerves in your body.
You breathe 1,200 times each hour.
Your heart is 4 inches around and 6 inches long.
You have three layers of skin.

A safe mixture of alcohol and gasoline has never been found for operating an automobile.

DEAFNESS IN SCHOOL CHILDREN

According to a medical article, which appeared in the Journal of the American Medical Association, it is estimated that there are about three million school children in the United States who are partially deafened in one or both ears.

In a survey made at Pottstown, Pennsylvania, where the children come from wealthy parents, who see that they get every possible medical care, the incidence of deafness among the pupils was three per cent only. In a similar survey in the public schools of Nassau County over five per cent of the children had deficient hearing. In New York City, where health and hygienic conditions are not so good, deafness was found in fourteen per cent of school children.

The detection in childhood is not always easy. Many a child has been considered mentally backward or mentally deficient when he is simply suffering from hardness of hearing. The deaf child repeats several classes, grows to be larger than the average in his class, and is apt to be put in a back seat in the classroom in order that he may not obstruct the view of the smaller pupils. Thus a vicious circle is started. The further away from the teacher he sits, the less he hears and the more often he repeats his grades.

If we have periodic examinations of all school children, say once a year, by a competent specialist, the deaf child is detected, and we are well on our way toward curing or preventing deafness. Fortunately we now have an instrument known as the *phonograph audiometer* which tests children's hearing at the schools in groups of thirty to forty at one sitting. It is thus possible to test several hundred children in a few hours and to identify those who are hard of hearing. Then the specialist examines each deaf child carefully and recommends the kind of treatment to be followed.

In the study made in the schools of Nassau County, nearly one-half of the children, who were hard of hearing, were suffering from some form of catarrhal deafness associated with enlarged tonsils and adenoids. Fortunately, tonsil and adenoid operations, followed by inflation of the ears, will cure the majority of these cases. The important thing is to institute treatment early while the child is young and at a time when serious deafness may be prevented. Other common causes of deafness are running ears, nerve deafness, foreign bodies such as beads or stone in the ear and nasal sinus disease.

Studies made in the Public Schools of Rochester, New York, and elsewhere, show that partially deafened children repeat their grades at school about three and one half times more than the normal children. If we look at this question from the selfish standpoint of saving the taxpayer money, it means that, if repetition of classes by the deaf could be prevented, in a school system of 10,000 children the minimum saving

would be $4,500.00 per annum. In pupils, where the trouble has gone too far to affect a cure of the deafness, much can be accomplished to aid the child in his studies and in his future work by medical treatment, instruction in lip reading, the use of artificial aids to hearing and front row of seats in school.—*Nassau Medical News.*

DEAFNESS IS PREVENTABLE

Ninety-eight per cent of deafness is preventable. Most cases of deafness result from diseased conditions that started during the first ten years of life.

Impaired hearing leads to deafness unless properly treated.

Find impaired hearing in its incipency with the *Phone Audiometer.*

"Most so-called inherited deafness is not inherited at all. The few cases of real inherited deafness might have been prevented if children were allowed to choose their grandparents."

Obstructing or diseased tonsils and adenoids are frequent forrunners of deafness.

Auto accidents, fractured skulls, blows on ear, boxing the ears, foreign bodies in ears, water in ears while bathing, blowing nose too violently, are responsible for many cases of deafness.

DON'TS FOR THE HARD OF HEARING

Don't neglect a frequent physical examination.

Don't wear cotton in your ears continuously.

Don't, however, get water in the ears if the ear drum is perforated.

Don't try to hide your handicap.

Don't hesitate to apply to your state rehabilitation bureau for assistance with your employment.

Don't develop a hearing impairment complex.

Don't let pride deprive you of the wonderful benefit of hearing aids.

Don't fail to avail yourself of every opportunity for lip-reading instruction and exercise.

Don't fall for quack hearing racketeers.

Wendell Phillips, M.D.

Every advance in our knowledge increases the potential capacity of man. But the mere increase of knowledge, and particularly the knowledge of preventive medicine or the ways and means of personal hygiene and well being can do nothing of itself to prevent disease and safeguard health, unless it be understood, accepted and practiced.

—Sir George Newman.

Money lost—little lost;
Honor lost—much lost;
Pluck lost—all lost.

ON IMMUNIZATION

Lastly, one final word on immunization. Personally I find it difficult to believe that active immunization of the population against every conceivable infection is the last word in prevention of infectious disease, but at the moment we must admit that so far as these personal infections are concerned, it is by far the most potent preventive we possess, and it would be foolish not to make full use of it in appropriate circumstances. Most people are prepared to give the method a fair trial if its purpose is clearly explained to them and the element of compulsion is eliminated. Apart from vaccination against smallpox, which remains the only really effective means at our disposal for combating this disease, one of the most important recent additions to our armamentarium is diphtheria prophylaxis. To anyone contemplating a trial of this method I would emphasize the importance (1) of educating the parents and particularly the mothers as regards its advantages; (2) of enlisting the support of the local medical profession, and in this connection I would refer to the valuable report recently prepared by a committee of the British Medical Association under the chairmanship of Professor Picken, in which the whole question is carefully reviewed; and (3) of concentrating on the younger ages. The age of maximum incidence of diphtheria is six to eight years, and American experience suggests that at least thirty per cent to forty per cent of the children below this age must be immunized to ensure against a serious outbreak.—Presidential address on Some Aspects of the Problem of the Prevention and Control of Infectious Disease, by Thomas Carnwath, D.P.H., J. Roy. San. Inst., Sept., 1935, pp. 94-95.

"Scarlet fever and diphtheria prophylactics may be safely administered as a combined injection.

"The nursing staffs of fever and children's hospitals should be actively immunized against scarlet fever. There is no evidence that clinical scarlet fever has been replaced by 'scarlatinal tonsillitis' in successfully immunized nurses, and an immunized nursing staff does not increase the risk of conveyance of scarlet fever to non-scarlatinal patients.

"Active immunization is the most effective method of controlling scarlet fever in residential institutions for children.

"Should active immunization be offered to the public it is essential that an adequate immunizing dosage be employed, otherwise the method will get into disrepute.

"The possibilities of this method of prophylaxis should be brought to the notice of the general practitioner. Active immunization of 'home contacts' would help to solve the 'return case' problem.

"So long as the present mild phase of scarlet fever persists a method of control entailing not only five injections, but also the probability of systemic reactions, is not practicable for general application in Great Britain."—*Illinois Health Messenger.*

IMMUNIZATION AGAINST SCARLET FEVER

From their extended experience Benson and Rinkin conclude (Lancet, Dec. 15, 1934) that:

"The Dick test is for all practical purposes a reliable index of immunity to scarlet fever.

"Active immunization with graded doses of toxin will rapidly and effectively protect the majority of susceptible persons against scarlet fever. To obtain a lasting immunity at least 80,000 to 100,000 skin-test doses of toxin must be administered in five weekly subcutaneous injections of 500, 2,000, 5,000, 25,000, and 50,000 skin-test doses. Even with this graded course of injections systemic reactions must be expected in at least 10 per cent of individuals immunized.

SMALL TOWN SCHOOL CHILD

Only one of each 4 school children in the small towns and rural areas of Illinois is vaccinated against smallpox. Only one of each 6 has been inoculated against diphtheria. One of each 6 is underweight and a similar proportion has defective vision. One of each 4 has dental impairment. Three of each 100 have some physcal impairment of the legs or feet and one of each 100 has some degree of heart impairment.

This picture of health conditions is drawn from the results of the medical inspection of 3,088 school children in ten different counties and twenty-eight different schools. The inspections were made during 1935 by pediatricians on the staff of the division of child hygiene of the State Department of Public Health.

The conclusion to be drawn is that the practice of preventive medicine among small town and rural school children in Illinois has lagged far behind that in the larger municipalities. While the proportion of physical defects found is about the same as among children in the larger cities, these defects have been corrected in a fewer proportion of cases. Inoculation against smallpox and diphtheria has been practiced to a much less degree among the children in the small towns and rural schools than in the larger cities.

The inevitable result will be that these children will suffer more extensively from preventable diseases and from correctable physical impairments than city children if the situation continues. The weakest point in the whole public health program of Illinois is now the lack of medical health officers and public health nurses for the small towns and rural districts.

—*Illinois Health Messenger.*

Young men think old men are fools; but old men know young men are fools.

The secret pleasure of a generous act, is the great mind's great pride.—Dryden.

Reading maketh a full man, conference a ready man, and writing an exact man.—Bacon.

IN A KING'S REIGN

The December number of School Life, published by the United States Department of Interior, contains an interestng article by Dr. James F. Rogers with the above title.

It tells of the deep interest always taken by the late King George, in the health of school children. It says "the organization and growth of care for the children's health in the London schools are exactly contemporaneous with the reign."

Comparative figures are given to show the remarkable progress made in the work during the reign of the King.

The most significant and gratifying feature of the system was the success in getting things done.

It succeeded in greatly reducing and in some conditions almost suppressing the incidence of physical defects among school children.

Its accomplishments make a fitting monument to the memory of a Beloved King.

HELPING DAD

My Daddy has a golden star
  Upon the windshield of our car:
It is an honor badge placed there
  To show that Daddy drives with care.

You bet I'm proud as I can be
  To know my Dad drives carefully,
And I can help him when we ride
  By sitting still right by his side.

I never stand or squirm about
Or ride with my hands sticking out.
For outstretched hands are meant to show
The cars behind which way we'll go.

—*Eunice Cassidy Hendryxe.*

The greatest works of human genius—the books and plays, the music, sculpture and paintings—must be enjoyed as they were produced, alone. The quality of pleasure they give is finer and more enduring than any other. Perhaps that is because they are the most human possessions we have. Our herd instincts we share with many other animals, but our culture is ours alone. For when we create or enjoy art and literature we are giving expression to our humanity, that quality that distinguishes us from dogs, horses, or sheep—our minds.—*Scholastic.*